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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,512	05/02/2005	Maria Rosa Gasco	GASCO ET AL - 1PCT	4539
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COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER HUANG, GIGI GEORGIANA	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/533,512

**Applicant(s)**

GASCO ET AL.

**Examiner**

GIGI HUANG

**Art Unit**

1612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11 and 22-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11 and 22-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Status of Application***

1. The response filed July 10, 2009 has been received, entered and carefully considered. The response affects the instant application accordingly:
  - a. Claim 11 have been amended.
  - b. Claim 2-4, 7-10, 12-21 has been cancelled.
  - c. Claim 22-28 has been added.
2. Claims 11, 22-28 are pending in the case.
3. Claims 11, 22-28 are present for examination.
4. The text of those sections of title 35.U.S. Code not included in this action can be found in the prior Office action.
5. All grounds not addressed in the action are withdrawn or moot.
6. New grounds of rejection are set forth in the current office action.

***New Grounds of Rejection***

7. Due to the amendment of the claims the new grounds of rejection are applied:

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 11, 22-28 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for while being enabling for bacterial or fungal endophthalmitis, viral retinitis, vitreoretinopathy, toxoplasmosis, uveitis, tumors, vascular

diseases, diabetic retinopathy, age-related macular degeneration, and glaucoma; it does not reasonably provide enablement for all ophthalmic diseases of the posterior segment of the eye such as Leber's Hereditary Optic Neuropathy, Stargardt's disease, and Leber's Congenital Amaurosis. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

The factors to be considered in determining whether a disclosure meets the enablement requirements of 35 U.S.C. 112, first paragraph, have been described in *In re Wands*, 858 F.2d 731, 8 USPQ2d 1400 (Fed. Cir., 1988). The court in *Wands* states, "Enablement is not precluded by the necessity for some experimentation, such as routine screening. However, experimentation needed to practice the invention must not be undue experimentation. The key word is 'undue', not 'experimentation'" (*Wands*, 8 USPQ2d 1404). Clearly, enablement of a claimed invention cannot be predicated on the basis of quantity of experimentation required to make or use the invention. "Whether undue experimentation is needed is not a single, simple factual determination, but rather is a conclusion reached by weighing many factual considerations" (*Wands*, 8 USPQ2d 1404). Among these factors are: (1) the nature of the invention; (2) the breadth of the claims; (3) the state of the prior art; (4) the predictability or unpredictability of the art; (5) the relative skill of those in the art; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary.

While all of these factors are considered, a sufficient amount for a *prima facie* case is discussed below.

*(1) The nature of the invention and (2) the breadth of the claims:*

The claims are drawn to a method of treatment for all ocular diseases of the posterior segment of the eye with solid lipid nanoparticles containing a pharmacologically active substance. Thus, the claims taken together with the specification imply that all ocular diseases of the posterior segment of the eye can be treated with solid lipid nanoparticles containing a pharmacologically active substance.

*(3) The state of the prior art and (4) the predictability or unpredictability of the art:*

The state of the art as addressed by Newman (Hereditary Optic Neuropathies: From the Mitochondria to the Optic Nerve) teaches the issues and etiology of hereditary optic neuropathies, specifically Leber's Hereditary Optic Neuropathy (LHON). This is a maternally-inherited disease that results in a permanent loss of central vision as a result of optic nerve degeneration, rod dystrophy, and abnormal changes of blood vessels in the area. The loss of vision is permanent with no known cure or treatment. As a result, the unpredictability is high as there is no known means of treatment for LHON.

Moss (Leber's Congenital Amaurosis) teaches that this degenerative disease with a premature degeneration of the retinal cells is genetically passed and there is currently no treatment for the condition.

Also, as addressed with the Mayo Clinic (Stargardt's disease: Can it be treated?) there is no treatment for this inherited form of macular degeneration.

*(5) The relative skill of those in the art:*

The relative skill of those in the art is high.

*(6) The amount of direction or guidance presented and (7) the presence or absence of working examples:*

The specification has provided guidance for the concept of treating bacterial or fungal endophthalmitis, viral retinitis, vitreoretinopathy, toxoplasmosis, uveitis, tumors, vascular diseases, diabetic retinopathy, age-related macular degeneration, and glaucoma with solid lipid nanoparticles containing a pharmacologically active substance.

However, the specification does not provide for a method of treatment for all ocular diseases of the posterior segment of the eye with solid lipid nanoparticles containing a pharmacologically active substance.

*(8) The quantity of experimentation necessary:*

Considering the state of the art as discussed by the references above, particularly with regards to the lack of treatment of hereditary optic neuropathies, specifically Leber's Hereditary Optic Neuropathy (LHON), conditions such as Leber's Congenital Amaurosis, and certain forms of macular degeneration such as Stargardt's disease, and the high unpredictability in the art as evidenced therein, and the lack of guidance provided in the specification, one of ordinary skill in the art would be burdened with undue experimentation to practice the invention commensurate in the scope of the claims.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 11, 22-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are unclear as they have been amended and recite both a method of treatment with solid lipidic nanoparticles comprising a pharmacologically active substance and recites methods of making of a solid lipidic nanoparticles. It is unclear if the claim is direct to the method of treatment, a composition with an intended use, or a method of making, or a product by process with intended use recitations. It is noted that the claims have been subject to restriction previously and Applicant had elected the method of treatment of ophthalmic disease comprising the intravenous or topical ocular administration comprising solid lipid nanoparticles comprising an pharmacologically active substance, wherein if the claims are directed to the composition, method of making, or a different process not previously presented, it would be withdrawn based on original presentation or based the previous election. For purposes of prosecution, the claims are treated as a method of treatment/administration for the claimed ophthalmic conditions with solid lipidic nanoparticles comprising an pharmacologically active substance wherein the method recitations of making the product are treated as product by process which do not distinguish over the art when the product (a solid lipidic nanoparticle) is utilized for the method of treatment claimed and in claim 24 the lipid in the nanoparticle is from the claimed group.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 11, 22-24, 27-28 are rejected under 35 U.S.C. 102(a) as being anticipated by Cavalli et al. (Solid lipid nanoparticles (SLN) as ocular delivery system for tobramycin).

Cavalli et al. teaches the use of solid lipid nanoparticles with tobramycin topically to the eye which would inherently result in treatment of any disease susceptible to the tobramycin in the posterior segment of the eye such as bacterial infections (e.g. bacterial endophthalmitis). The particles had tobramycin at 2.5%w/w, stearic acid, an average particle size of 80nm, and 0.3mg was administered to each eye in rabbits weighing 2.8-3.5kg (suspension contained 0.3%w/v TOB).

All the critical elements are taught by the cited reference and thus the claims are anticipated.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.



11. Claims 11, 22-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Amselem et al. (U.S. Pat. 5662932).

Amselem et al. teaches pharmaceutical composition comprising emulsomes with a lipid core including solid lipid cores. The particles have a average particle size with preferred range of 10-250nm and in certain preparations the average will fall in the range of 50-150nm. The particles (emulsomes) can be administered in several ways including topically and intravenously. A particular mode of administration described in instillation into the eye and that these compositions are similar to those of parenteral solutions. Several drugs are taught to be used with the particles including beta-adrenergic blockers (e.g. adaprolol and timolol) for glaucoma, cannabinoids, antifungal, antibiotics, corticosteroids, AIDS drugs. The lipid for the core includes triglycerides such as fatty acids in the C10-C18 range, tricaprln, trilaurin, trimyrstin, tripalmitin, and tristearin. Other components that can be included are cholesterol and phospholipids.

Examples are provided with drug emulsomes with particles sizes and administered in different modalities were any ophthalmic condition in the posterior of the eye present would inherently be treated (e.g. Example 6 - 1% indomethacin with 0.5g indomethacin, 2.5g tricaprln, 0.1g cholesterol, 0.1g oleic acid, ophthalmic use; Example 16-18 adaprolol maleate (0.4%) topical to the eye for IOP reduction in rabbit with 2.5-3.0kg, Example 20- IV administration of HU-211 cannabinoid to rates at 5mg/kg particle average 153+/-24nm). It is noted that as the components of the composition are met, the properties of the composition are also met. Example 6 with 1% indomethacin with 0.5g indomethacin, 2.5g tricaprln, 0.1g cholesterol, 0.1g oleic acid is taught for

ophthalmic use wherein it would inherently affect any condition affecting the posterior of the eye and also be immediately envisioned for its known uses in the eye (e.g. uveitis). Example 17 also depicts the topical administration of the emulsomes comprising adaprolol maleate, tricaprin, cholesterol, and oleic acid for intraocular pressure (glaucoma) to the eye with a significant reduction of the IOP. Example 20 depicts IV administration of HU-211 cannabinoid (known for anti-glaucoma) to rates at 5mg/kg wherein it would inherently affect any glaucoma present (Abstract, Col. 3 line 48-Col. 5 line 57, Col. 6 line 65-Col. 7 line 10, Col. 8 line 20-26, Col. 8 line 58- Col. 9 line 48, Col. 10 line 7-Col. 11 line 50, Examples, claims).

All the critical elements are taught by the cited reference and thus the claims are anticipated.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cavalli et al. (Solid lipid nanoparticles (SLN) as ocular delivery system for tobramycin) as applied to claim 2, 4, 11,13 above.

The teachings of Cavalli et al. are addressed above.

Cavalli et al. does not expressly teach an example of SLN with certain drugs such as hydrocortisone and timolol. Cavalli does teach tobramycin SLN's and that SLN's are known and many hydrophobic and hydrophilic drugs such as hydrocortisone, tobramycin, and timolol have been incorporated into SLN and administered by different routes including ocular and intravenous.

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to utilize other drugs such as hydrocortisone and timolol in the SLN for ophthalmic delivery, and produce the instant invention as Cavalli teaches that SLN are a promising vehicle for topical ocular administration as they were well tolerated and drug levels were significantly higher with SLN's. Additionally Cavalli teaches that tobramycin (utilized in Cavalli), timolol (known anti-glaucoma agent), and hydrocortisone (known anti-inflammatory, e.g. uveitis) are known in the art to have been previously incorporated in SLN's and administered, wherein it would be obvious to utilize these drugs in SLN's for their known ophthalmic purposes.

One of ordinary skill in the art would have been motivated to do this because it is desirable to utilize drugs that have been previously placed in SLN's for their known ophthalmic purpose when evidence shows that the SLN forms in Cavalli have a better therapeutic profile and is well tolerated.

13. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cavalli et al. (Solid lipid nanoparticles (SLN) as ocular delivery system for tobramycin) as applied above, in view of Schwartz (U.S. Pat. 4904649).

The teachings of Cavalli et al. are addressed above.

Cavalli et al. does not expressly teach intravenous delivery. Cavalli does however teach that many hydrophobic and hydrophilic drugs such as nifedipine, hydrocortisone, tobramycin, timolol, paclitaxel, and doxorubicin have been incorporated into SLN and SLN have been administered by several routes (e.g. parenteral, oral, ocular).

Schwartz teaches that corticosteroids such as hydrocortisone and beta-adrenergic such as timolol are used to treat glaucoma and can be administered in various ways including topically to the eye, orally, intravenously, and iontophoresis (Abstract, Col.5 line 48-52, Col. 6 line 14-33, 44-53).

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to be used intravenously, as suggested by Schwartz, and produce the instant invention. It would have been obvious to one of skill in the art to utilize the SLN's taught by Cavalli for a known purpose in a known mode of administration as taught by Schwartz.

One of ordinary skill in the art would have been motivated to do this because Cavalli teaches that the SLN's have better therapeutic delivery, release, therapeutic profiles (bioavailability) whereby it would be desirable to use drugs known to be in SLN's for their known purpose for better results and therapy.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claim 11, 22-28 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 89 and 91 of copending Application No. 11/629141. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are more specific (species) and anticipate the broader claims (genus) of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Response to Arguments***

15. Applicant traverses the withdrawal of the process claims 8-10 asserting that the process limitation for the preparation of the SLN is a limitation to the therapeutic method and it has not been independently claimed. This is not persuasive as the claims 8-10

were drawn to a method of making, the claims (e.g. claim 11) for the therapeutic method only recited the use of a solid lipid nanoparticle and step unifying all the claims was a solid lipid nanoparticle which is known in the art as presented by Amselem which shows that there is no inventive step. Applicant also had revised claim 8 to be in independent form on 11/3/2008 to improve their form whereby it was to correct the informality. As a result, the withdrawal as a result of the restriction, was proper. In addition, Applicant cites that the SLN preparation of the particles is known (EP 526666) wherein there is no inventive step and restriction was proper.

16. The claims have been amended to include the method of making recitations in the claims directed to the method of treatment. This is unclear as addressed in the 112 2<sup>nd</sup> rejection above. It is treated as a method of treatment with SLN wherein the method of making recitations are treated as product by process wherein a SLN is used for the method of treatment, the limitation is met as there is no evidence that the product is distinct from the SLN's of the prior art. As for Applicant's arguments that the SLN's of the instant application allow the ocular drug to distribute in the posterior segment of the eye verses a commercial intravenous composition (Gentomil®), this is not persuasive as the comparative first doesn't disclose what is in the commercial composition which is trademarked wherein the formulation is variable and as it is not marketed in the U.S. wherein the information of what is in Gentomil® is not readily available and is not presented in the specification. Review of Italian sites show the Gentomil® to be a buffered solution of gentamicin which is not a solid lipid nanoparticle to show the distinction between those in the art and that of the instant application. It is well known in

the art that nanoparticles improve solubility and delivery of drugs wherein the results are not unexpected as demonstrated by the art (e.g. Cavalli et al. teaches the benefits and teaches the use and benefit of the SLN's and teaches it with tobramycin for bacterial endophthalmitis). As a result, the arguments are not persuasive.

17. Applicant asserts that the term solid lipid nanoparticles is an abbreviation for a proprietary vehicle formed by the method in the instant claim which is not persuasive as the term is not defined as such in the specification. The term dictates that the particle be a nanoparticle (a small particle measured within a range of nanometers) comprising a solid lipid (e.g. Amselem) and is a term of art as demonstrated by Cavalli et al. wherein the term is not proprietary. Applicant also asserts that the therapeutic method can only be obtained with the SLN's prepared according to the Applicant's proprietary method. This is not persuasive as both Cavalli and Amselem teach solid lipid nanoparticles for the eye which treats certain conditions of the posterior eye.

18. Claims 2-4, 7, 11-13 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for bacterial or fungal endophthalmitis, viral retinitis, vitreoretinopathy, toxoplasmosis, uveitis, tumors, vascular diseases, diabetic retinopathy, age-related macular degeneration, glaucoma, does not reasonably provide enablement for all ophthalmic diseases.

Claim 2-4, 7, 12-13 are cancelled, the rejection is moot.

Applicant's arguments filed 7/10/2009 have been fully considered but they are not persuasive. Applicant asserts that the claims are now directed to conditions to the posterior of the eye and applicable to active not yet known for the treatment of these

conditions when available in the future. This is not persuasive as the method of treatment is not enabled for several conditions which cannot be treated as shown by the art and is only enabled for certain conditions as addressed by the 112 1st rejection above. Applicant's argument for treatment with possible drugs for conditions in the future is not persuasive as Applicant cannot claim for what they are not able to do at the time of filing see MPEP 2164.05(a).

Accordingly, the rejection is maintained.

19. Claims 2, 4, 11,13 are rejected under 35 U.S.C. 102(a) as being anticipated by Cavalli et al. (Solid lipid nanoparticles (SLN) as ocular delivery system for tobramycin).

Claim 2-4, 7, 12-13 are cancelled, the rejection is moot.

Applicant's arguments filed 7/10/2009 have been fully considered but they are not persuasive. Applicant asserts that Cavalli does not teaches the SLN's to be able to reach the posterior segment of the eye as the testing was measuring the increased concentration in the aqueous humor. This is not persuasive as administration of the SLN of Cavalli would inherently reach the posterior segment as the results are the same when the mode of administration and the components of the composition utilized for the method of treatment are met. It is noted that Cavalli also teaches its use for bacterial endophthalmitis which is a condition in the posterior segment of the eye.

Accordingly, the rejection is maintained.

20. Claim 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cavalli et al. (Solid lipid nanoparticles (SLN) as ocular delivery system for tobramycin) as applied to claim 2, 4, 11,13 above, in view of Schwartz (U.S. Pat. 4904649).



Claim 7 and 12 are cancelled, the rejection is moot.

Applicant's arguments filed 7/10/2009 have been fully considered but they are not persuasive. Applicant arguments in regards to Cavalli are addressed above. Applicant's argument that Schwartz does not teach how to administer drugs to the posterior eye or how to treat glaucoma is not persuasive as Schwartz teaches that corticosteroids such as hydrocortisone and beta-adrenergic such as timolol are used to treat glaucoma and these are known to be administered in various ways including topically to the eye, orally, and intravenously wherein Cavalli in view of Schwartz, it would be obvious to treat the conditions (e.g. timolol for glaucoma) with administration of the known drugs in SLN's by the known modalities (e.g. oral, topical, i.v.) of the art. It is noted that administration of the SLN's of Cavalli would intrinsically reach the posterior segment as the results are the same when the mode of administration and the components of the composition utilized for the method of treatment are met.

Accordingly, the rejection is maintained.

21. Claims 2-4, 7, 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Amselem et al. (U.S. Pat. 5662932).

Claim 2-4, 7, 12-13 are cancelled, the rejection is moot.

Applicant's arguments filed 7/10/2009 have been fully considered but they are not persuasive. Applicant asserts that Amselem does not teach the SLN's of the present invention citing that Amselem is a drug-loaded solid emulsion and Applicant teaches nanoparticles. This is not persuasive as addressed above, there is no evidence presented that distinguishes the solid lipid nanoparticles of the instant application over

the art. Amselem teaches particles with a solid lipid core with a particle size distribution in the range of 10-250nm which is a nanoparticle with in the inclusion of several drugs including beta-adrenergic blockers (e.g. adaprolol and timolol) for glaucoma, cannabinoids, antifungal, antibiotics, and corticosteroids for treatment of eye conditions. The lipid for the core includes triglycerides such as fatty acids in the C10-C18 range, tricaprin, trilaurin, trimyristin, tripalmitin, and tristearin. Other components that can be included are cholesterol and phospholipids. The arguments that Amselem's nanoemulsion are not solid at 37°C (col. 5 line 13-25) and is a mixture of liquids. This is not persuasive as the reference is just to one section and one embodiment of Amselem where the general teaching of Amselem is to a lipid that can be a liquid or solid core and can be a single compound or a mixture. Lipids taught for Amselem include triglycerides that are solid at 25°C such as fatty acids in the C10-C18 range including tricaprin, trilaurin, trimyristin, tripalmitin, and tristearin are suitable for the lipid core and the same ones argued by Applicant (Col. 3 line 56-Col. 4 line 7, Col. 4 line 22-30, Col. 4 line 49-58). As addressed above, the therapeutic method of using a product formed by a process does not distinguish over the art when the product (a solid lipidic nanoparticle) is utilized for the method of treatment claimed wherein the results are the same when the mode of administration and the components of the composition utilized for the method of treatment are met. The art meets the recitations of the claims. It is noted that Applicant argues that the glaucoma treated in Amselem is not treatment of pathologies of the posterior of the eye which both confusing and not persuasive as glaucoma is a

known condition in the art of the posterior eye (optic nerve) and is addressed as such in Applicant's specification.

Accordingly, the rejection is maintained.

22. Claim 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cavalli et al. (Solid lipid nanoparticles (SLN) as ocular delivery system for tobramycin) as applied to claim 2, 4, 11,13 above.

Claim 3 is cancelled, the rejection is moot.

23. Claim 2-4, 7, 11-13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 89 and 91 of copending Application No. 11/629141.

Claim 2-4, 7, 12-13 are cancelled, the rejection is moot.

There is a clear typographical error where the Application is 11/629141, Applicant cites it as 11/629941. The copending application 11/629141 shares a common inventor and with the amendments to the claims, the rejection is applied above as the instant amended claims anticipate the broader copending claims. There are no arguments, the rejection is maintained for claim 11.

### ***Conclusion***

24. Claims 11, 22-28 are rejected.

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIGI HUANG whose telephone number is (571)272-9073. The examiner can normally be reached on Monday-Thursday 8:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fredrick Krass can be reached on 571-272-0580. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GH  
/Zohreh A Fay/  
Primary Examiner, Art Unit 1612